

Force Changes Speed

Purpose

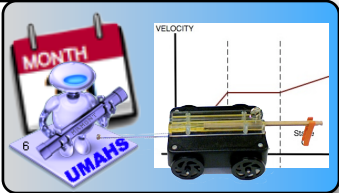
- Newton's Second Law claims that acceleration is directly proportional to net force. So when the force drops down to zero, the speed will continue to grow, but not by as much.

Learning Objectives

- To perform a video analysis of motion in order to identify changes in velocity.

Plan and/or Tasks

- Compress a spring-loaded cart against a firm surface.
- Align a metric ruler along the path the cart will travel when released.
- Prepare PhotoBooth on your laptop to take a video record of the cart.
- Study the video frame-by-frame and record the location of the cart as the spring pushes the cart.
- Analyse the data to determine how the cart's speed increased during the event.



Frame	Location	Velocity

Analysis:

The velocity of the cart...